JOURNAL OF RESEARCH of the National Bureau of Standards—B. Mathematical Sciences
Vol. 72B, No. 4, October–December 1968

INDEX TO VOLUME 72B

January to December 1968

A

Aissen, M., Means and the minimization of errors... 1
Algebraic equations... 23
Allocating service periods to minimize delay time... 215
Allocation... 215
Alt. F. L., Kirsch, R. A., Citation searching and bibliographic coupling with remote on-line computer access... 61
Analysis of variance... 33
Arithmetic mean... 1
Atchison, T. A., Gray, H. L., A note on the *G*-transformation... 29

B

BBGKY hierarchy equations... 127
Bessel functions... 61
Bibliographies... 145
Bipartite graphs... 79
Born approximation...

C

Calibration... 33
Cancellation...
Cauchy inequalities... 7
Characteristics... 201
Citation searching and bibliographic coupling with remote on-line computer access... 61
Citations... 61
Class of thickness-minimal graphs... 145
Commutator subgroup...
Comparison of finite difference computations of natural convection...
Computer... 61
Conjectures... 239
Connectivity... 239
Contingency tables... 159
Correlation coefficient... 33
Coulomb field... 79
Cut-set... 239

D

Degrees of freedom... 33
Demand... 43
Differentiable generalized inverse... 103
Differentiable generalized inverses... 109
Diffusion... 135
Diophantine equation $P(x, y)=(xy+d)z$... 23
Diophantine equations... 23
Distribution of the sample correlation coefficient with one variable fixed... 33
Dirac and Klein-Gordon equations... 37
Distribution... 33

E

Eigenvalues... 115
Elasticity... 43
Enclosures...
Equilibrium... 93
Estimation of cell frequencies from marginals... 159
Evans, J. W., Hearon, J. Z., Differentiable generalized inverses... 109
—, —, On spaces and maps of generalized inverses... 103

F

Finite-difference...
Finite-difference equations... 201
Fixed variable... 33
Fluid flow...
Fong, J. T., Smith, J. C., On the coupling of longitudinal and transverse waves in a linear three-element viscoelastic string subjected to transverse impact... 201

G

Gelman, H., The second orthogonality conditions in the theory of proper and improper rotations. I. Derivation of the conditions and of their main consequences... 229
Generalized independence... 159
Generalized inverse... 103,
Generalized inverses... 109
Generalized inverses and solutions of linear systems...
Geometric mean... 1
Goldberg, K., Goldman, A. J., Newman, M., The probability of an equilibrium point... 93
Goldman, A. J., Minimax error selection of a discrete univariate distribution with prescribed componentwise ranking...
—, *Goldberg, K., Newman, M.*, The probability of an equilibrium point... 93
—, *McLynn, J. M., Meyers, P. R., Watkins, R. H.*, Analysis of a market split model... 43
—, *Meyers, P. R.*, Minimax error selection of a discrete univariate distribution with prescribed componentwise bounds...
Graph theory... 145, 239
Gray, H. L., Atchison, T. A., A note on the *G*-transformation... 29
Grossman, J. W., Hobbs, A. M., A class of thickness-minimal graphs... 145
—, —, Thickness and connectivity in graphs... 239

H

Harmonic mean... 1
Hearon, J. Z., Generalized inverses and solutions of linear systems...
—, *Evans, J. W.*, Differentiable generalized inverses... 109
—, —, On spaces and maps of generalized inverses... 103
Hermitian matrices... 7
Hobbs, A. M., Grossman, J. W., A class of thickness-minimal graphs... 145
—, —, Thickness and connectivity in graphs... 239
Hogben, D., The distribution of the sample correlation coefficient with one variable fixed... 33
Horn, W. A., Allocating service periods to minimize delay time... 215
Hypothesis testing... 159

I

Improper integrals... 29
Information retrieval... 61
Information theory... 159

Page

Integers 23
Interaction 159
Interaction in multidimensional contingency tables: an information theoretical approach 159
Interlacing theorems 7
Ion flow tubes 135
Iterated integrals 5

J

Jarvis, S., Jr., On the diffusion of an ion sheet in Poiseuille flow 135

K

Kirsch, R. A., Alt, F. L., Citation searching and bibliographic coupling with remote on-line computer access 61
Ku, H. H., Kulback, S., Interaction in multidimensional contingency tables: an information theoretical approach ... 159
Kullback, S., Ku, H. H., Interaction in multidimensional contingency tables: an information theoretical approach 159

L

Lehner, J., On the multipliers, of the Dedekind modular function 103
Linear algebra 103
Linear programs 43
Linear systems 1
Linear viscoelasticity 201

M

Mathematical basis for the plasma kinetic equations (BBGKY) 127
Mathematical economics 43
Mathematical models 145, 239
Mathematics 7, 229
Matrices 103, 109, 115,
Matrix 7
Matrix inequalities 7
Matrix theory 79
Maximon, L. C., Simple analytic expressions for the total Born approximation cross section for pair production in a Coulomb field 43
McLynn, J. M., Goldman, A. J., Meyers, P. R., Watkins, R. H., Analysis of a market split model 1
Means 1
Means and minimization of errors 43
Meyers, P. R., Goldman, A. J., Minimax error selection of a discrete univariate distribution with prescribed componentwise bounds 239
—, *McLynn, J. M., Goldman, A. J., Watkins, R. H.*, Analysis of a market split model 79
Minimality 239
Minimax error selection of discrete univariate distribution with prescribed componentwise bounds 79
Minimax error selection of a discrete univariate distribution with prescribed componentwise ranking 37
Minimax estimation 79
Moderate energy cross section 37
Modular group 103
Multiplier 201
Myers, V. W., Solutions of the time-dependent Klein-Gordon and Dirac equations for a uniform electric field 37

N

Natural convection 93
Newman, M., Goldberg, K., Goldman, A. J., The probability of an equilibrium point 33
Noncentral veta variable 33
Noncentrality 33
Nonlinear transformation 29
Note on the *G*-transformation 29

Page

ν-Derivatives 79
Numerical 229

O

On spaces and maps of generalized inverses 103
On the coupling of longitudinal and transverse waves in a linear three-element viscoelastic string subjected to transverse impact 201
On the diffusion of an ion sheet in Poiseuille flow 135
On the multipliers of the Dedekind modular function 103
On the signs of the ν-derivatives of the modified Bessel function $I_\nu(x)$ and $K_\nu(x)$ 79
Operations research 229
Orthogonal transformations 23
Osgood, C. F., The diophantine equation $P(x, y) - (xy - d)z$ ... 79
Pair production 43, 201
Partial differential equations 145
Planar graphs 7, 115,
Principal submatrices 7
Principal submatrices III: Linear inequalities 115
Principal submatrices V: Some results concerning principal submatrices of arbitrary matrices 127
Principal submatrices VII: Further results concerning matrices with equal principal minors 93
Probabilistic basis for kinetic equations 93
Probability 93
Probability distribution 93
Probability of an equilibrium point 93

Q

Q variate 33
Queueing theory 215

R

Racah cross section 79
Rank 115,
Relative error 1
Remainders 5
Remote consoles 61
Reudink, D. O., On the signs of the ν-derivatives of the modified Bessel functions $I_\nu(x)$ and $K_\nu(x)$ 79
Rotation 229

S

Scheduling 215
Second-order interaction 159
Second orthogonality conditions in the theory of proper and improper rotations. I. Derivation of the conditions and of their main consequences 229
Shisha, O., On Taylor's theorem 5
Simple analytical expressions for the total Born approximation cross section for pair production in a Coulomb field 79
Smith, J. C., Fong, J. T., On the coupling of longitudinal and transverse waves in a linear three-element viscoelastic string subjected to transverse impact 201
Solutions of the time-dependent Klein-Gordon and Dirac equations for a uniform electric field 37
Sopka, J. J., Mathematical basis for the plasma kinetic equations (BBGKY) 127
Switching theory 215
Symmetric matrix 115,

T

Taylor series 5
Taylor's theorem 5
Theory of games 93
Thickness and connectivity in graphs 239
Thickness of graphs 145, 239
Thompson, R. C., Principal submatrices III: Linear inequalities 7

	Page
—, Principal submatrices V: Some results concerning principal submatrices of arbitrary matrices	115
—, Principal submatrices VII: Further results concerning matrices with equal principal minors	
Three variables	23
t-Minimal graphs	145
Time-dependent solutions	37
Timesharing	61
Torrance, K. E., Comparison of finite-difference computations of natural convection	
Total photon cross section	79
Traffic flow	215
Transportation theory	215
Transverse impact	201

U

	Page
Uniform electric field	37

W

	Page
Watkins, R. H., McLynn, J. M., Goldman, A. J., Meyers, P. R., Analysis of a market split model	43
Wave propagation	201
Waves in strings	201
Word	

U.S. GOVERNMENT PRINTING OFFICE : 1969 OL—321-453